Suture, Needles, and Blades

SFC MCALLISTER

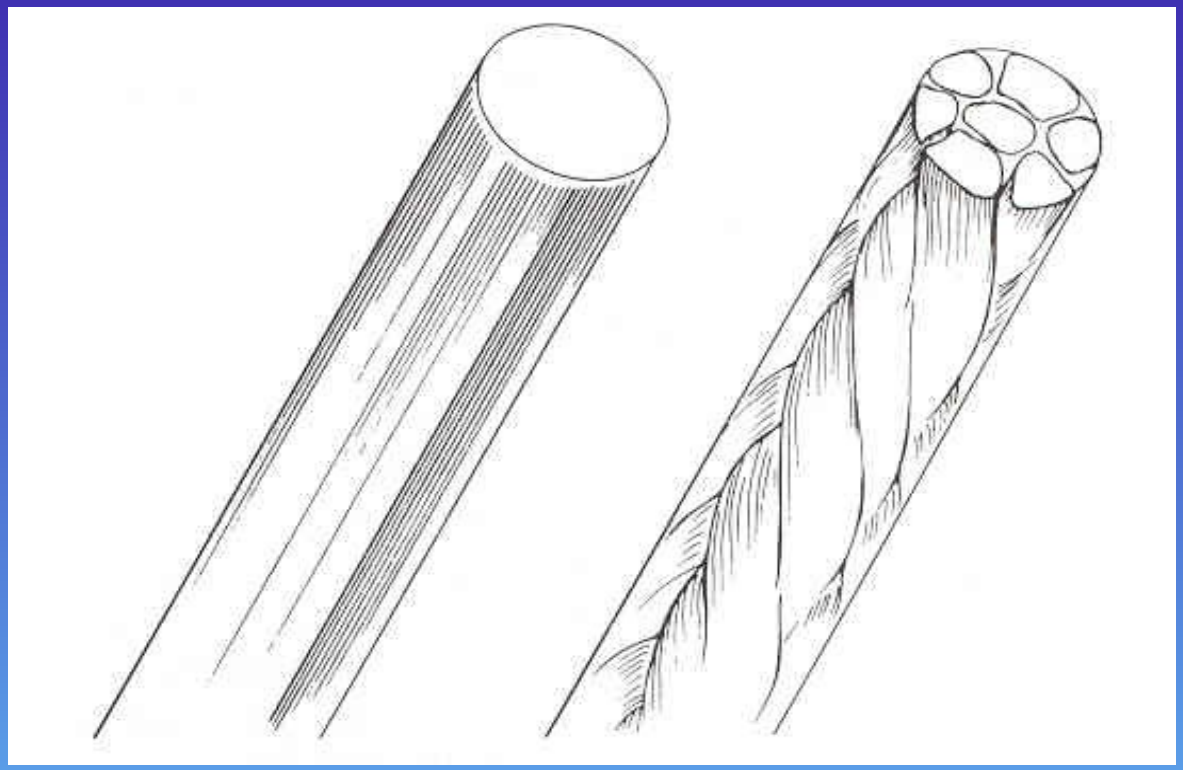
Definition of Suture Terms.

- Suture
- Wound Closure Material
- Hydrolysis
- Absorption Rate
- Tensile Strength
- Gauge
- Ties

Definition of Suture Terms.

- Swaged or Atraumatic Suture
- Suture Book
- Primary Wound Closure
- Secondary Suture Line
- Capillary
- Monofilament
- Multifilament

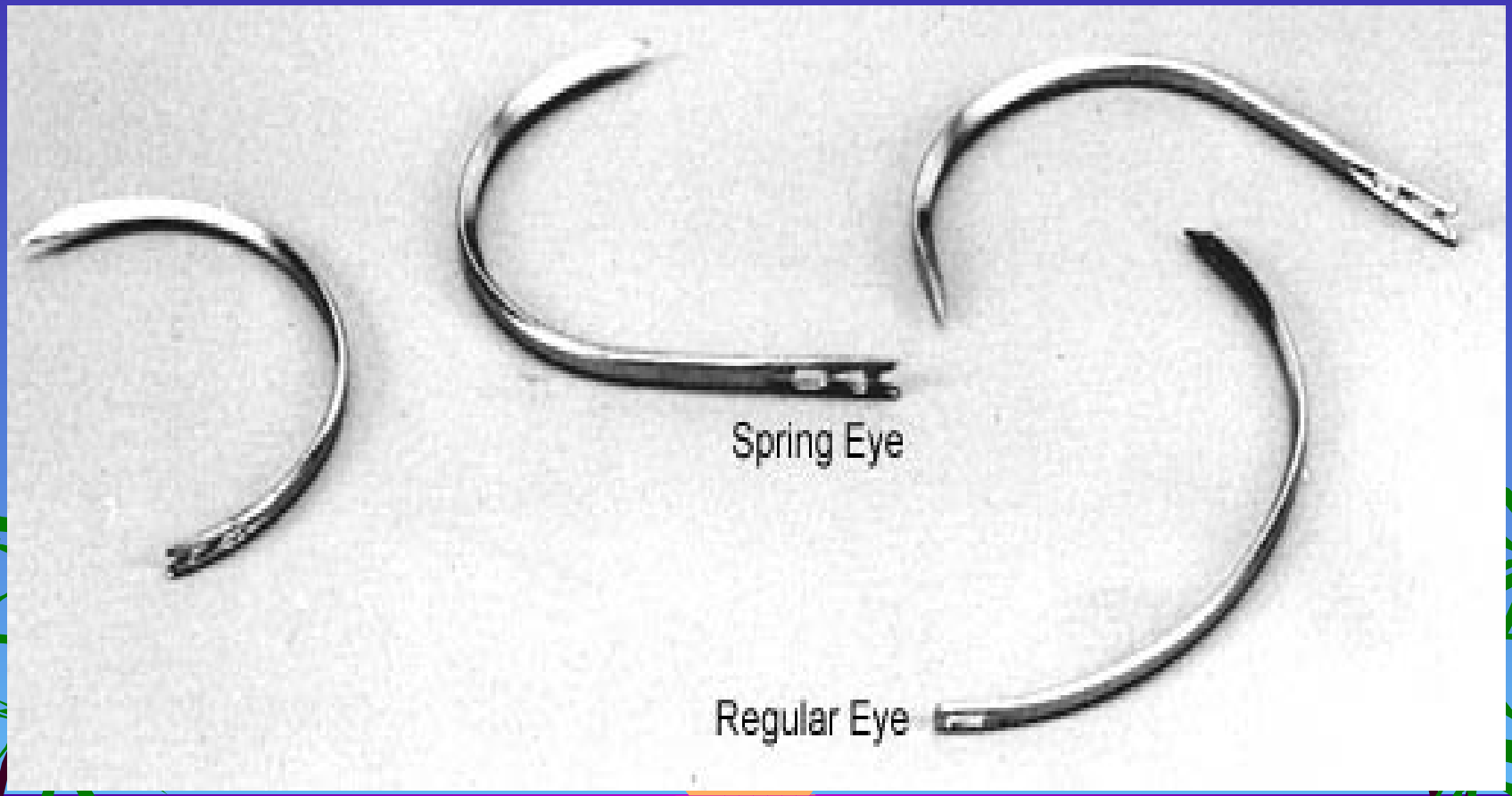
Monofilament/Multifilament



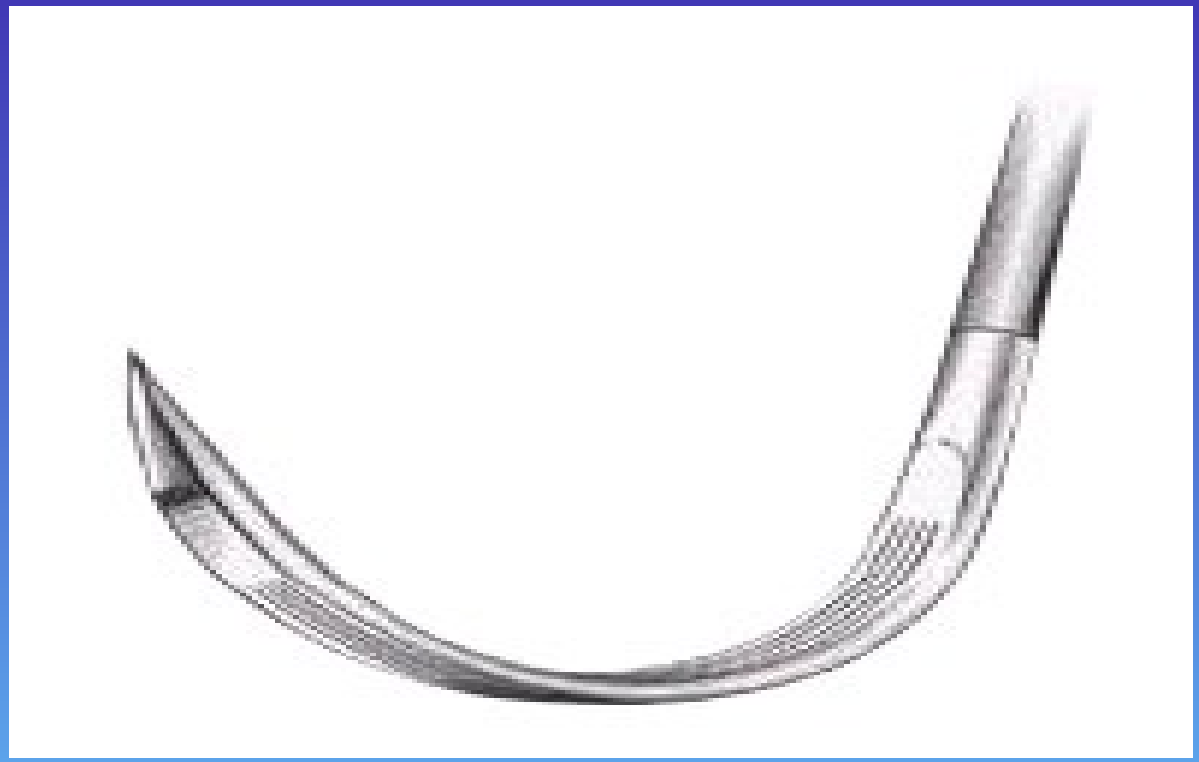
Components of Suture needles.

- Eye - three categories.
  - Eyeless
  - French eye
  - Closed eye

Eye of the Needle



Needles



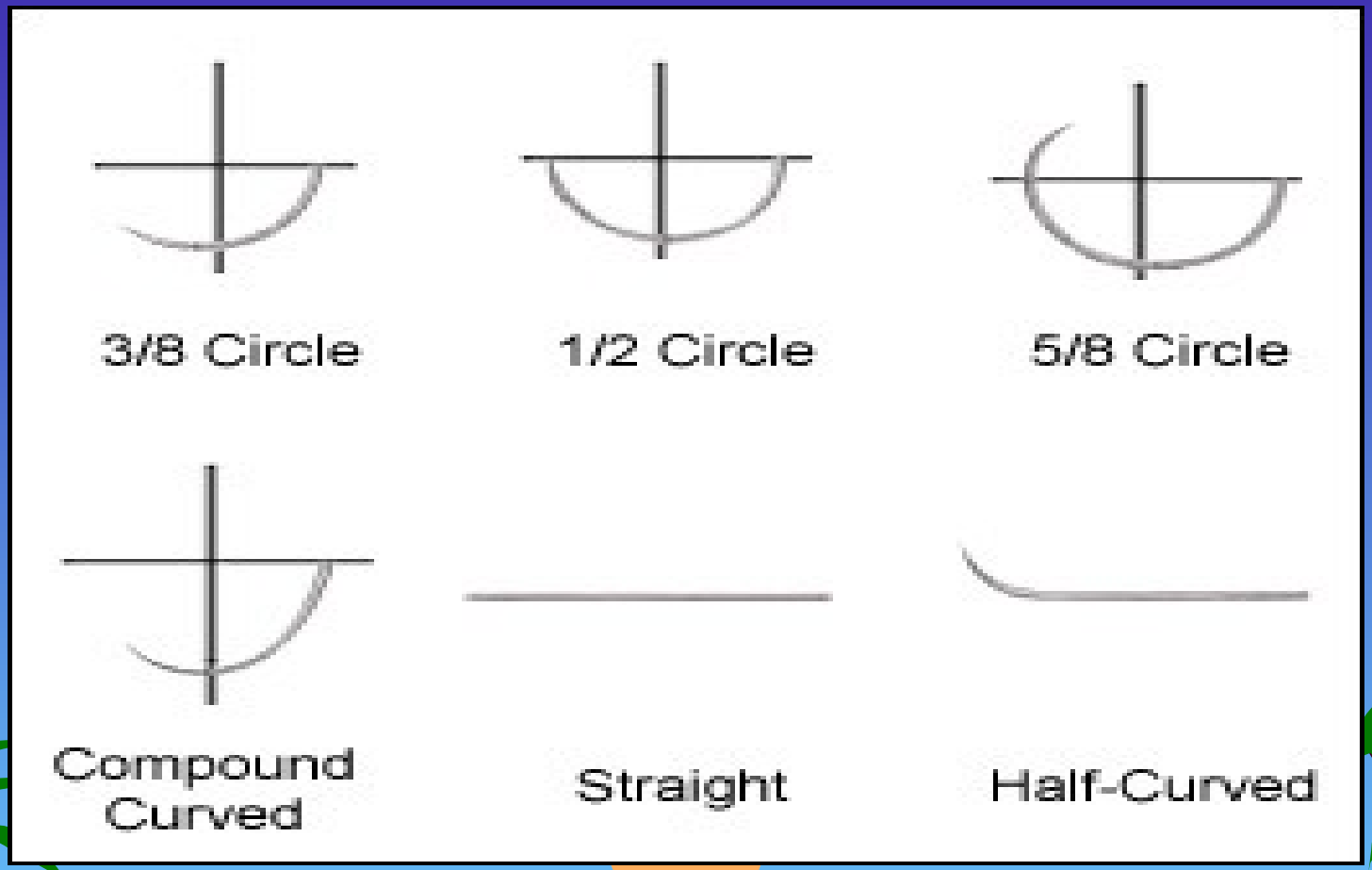
Components of Suture needles.

- Points - four common types.
  - Taper
  - Cutting
  - Tapercut
  - Blunt
- Body of the needle

Types of Suture Needles and Their Uses.

- Straight needle (Keith needle).
- Curved needle
  - 3/8 Circle
  - ½ Circle
  - ¼ Circle needle

NEEDLE SHAPES

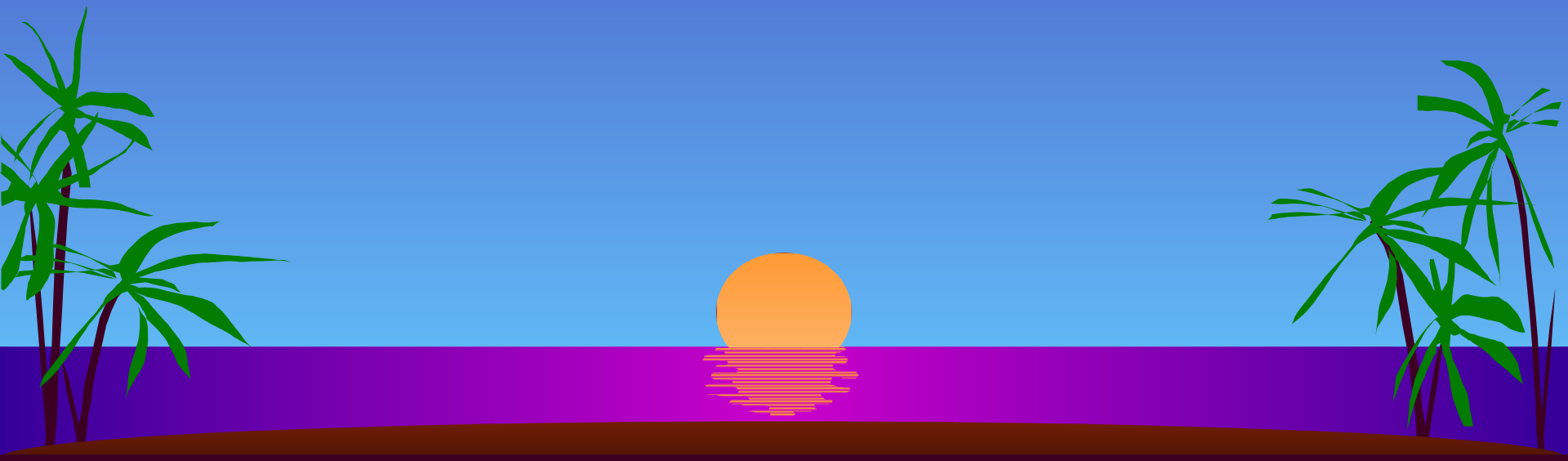


Criteria used for Selection of Suture Needles.

- Location of tissue
- Type of tissue
- Surgeons preference
- Patient

Purpose and Features of Basic Suture Needle.

- **Purpose - to carry suture material through tissue with minimal trauma.**



Purpose and Features of Basic Suture Needle

- Features.
  - May be sharp or blunt
  - Rigid enough to resist bending, yet flexible enough to bend a little before breaking.
  - Made of tempered steel
  - Free of burrs and corrosion

Natural Absorbable Sutures

NOTE: color in parenthesis indicate color of suture packet.

- Absorbable suture
  - Surgical catgut
    - Plain (yellow)
    - Chromic (beige)

Synthetic Absorbable Sutures

- Synthetic absorbable
  - Vicryl
  - Monocryl
  - PDS

Nonabsorbable Sutures

- Silk
- Polyester
- Nylon
- polypropylene
- Surgical steel

Determine Size of Suture.

- Small suture starts from 0 and goes to 11-0. The more zeros in the number, the smaller the suture.
- Heavy (large suture) starts at 1 and goes to 8. The larger the whole numbers, the larger the sutures.

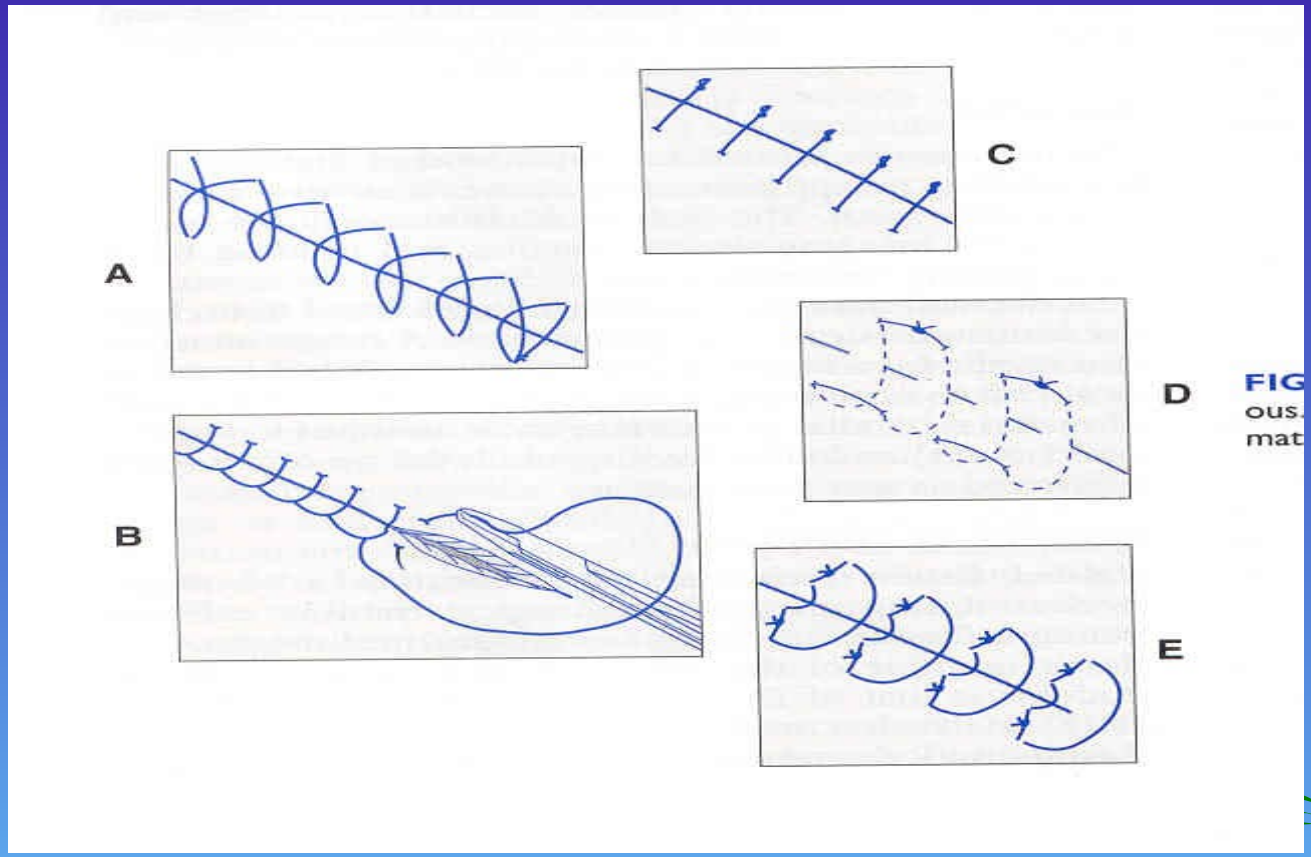
Suture Alternatives

- Sterile tissue adhesive strips/ skin closure tapes.
- Ligation clip
- Stapling instruments

Suturing Techniques

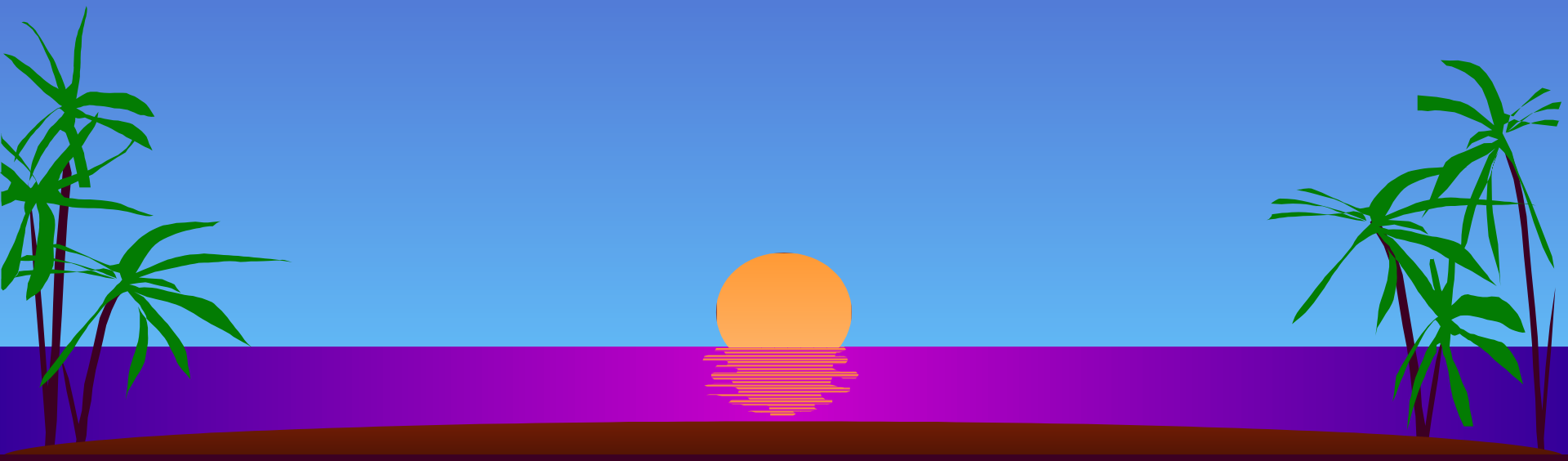
- Ties.
- Continuous stitch.
- Interrupted stitch.
- Purse string stitch.
- Subcutaneous stitch.
- Retention stitch.

Suturing Techniques



Knife Blades

- Blades and handles come in different sizes and certain blades will fit only on certain handles.



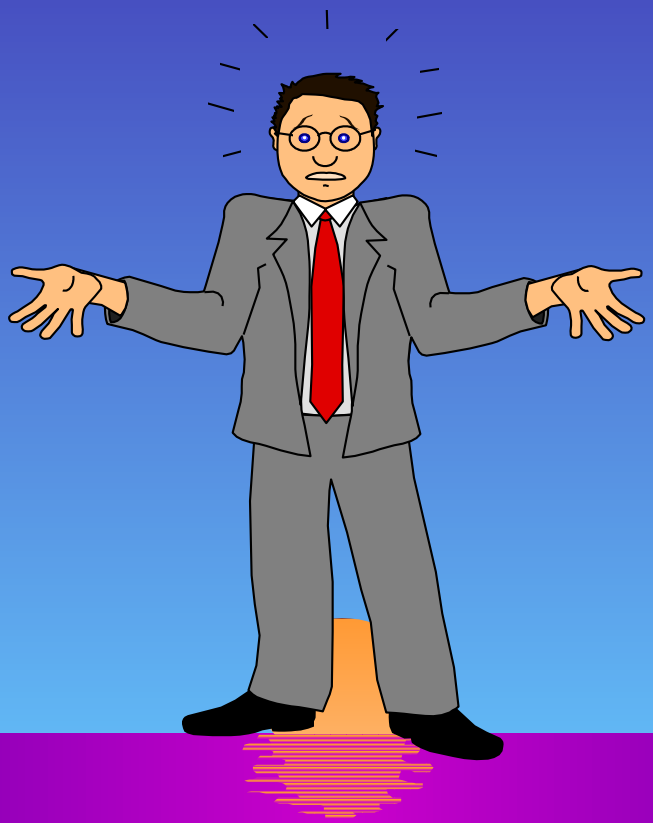
Knife Blades

- Blades with their respective handles and uses.
  - #20 and #21 blade fits a number 4 handle only and Used for large incisions.
  - #10 blade used mostly on a number 3 handle for skin closure.

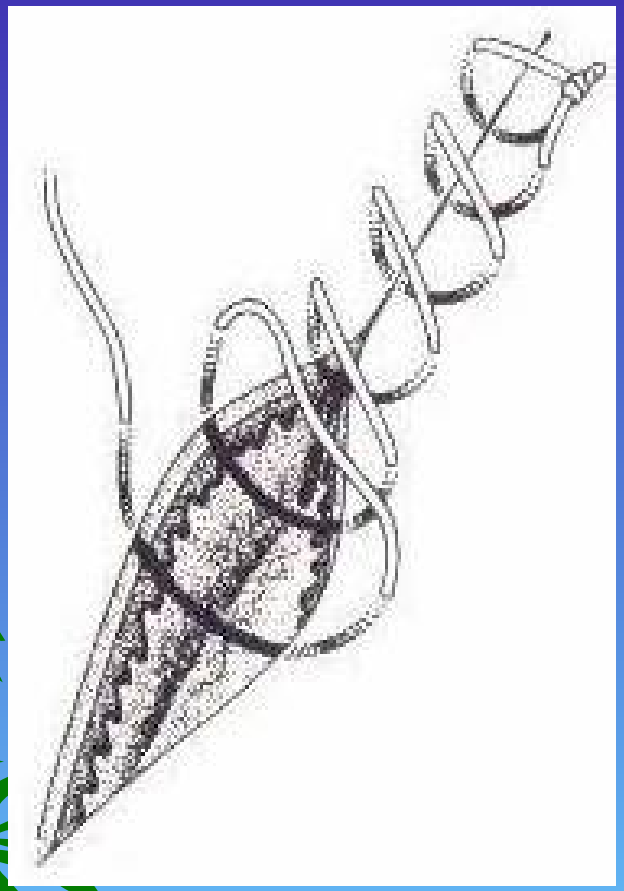
Knife Blades

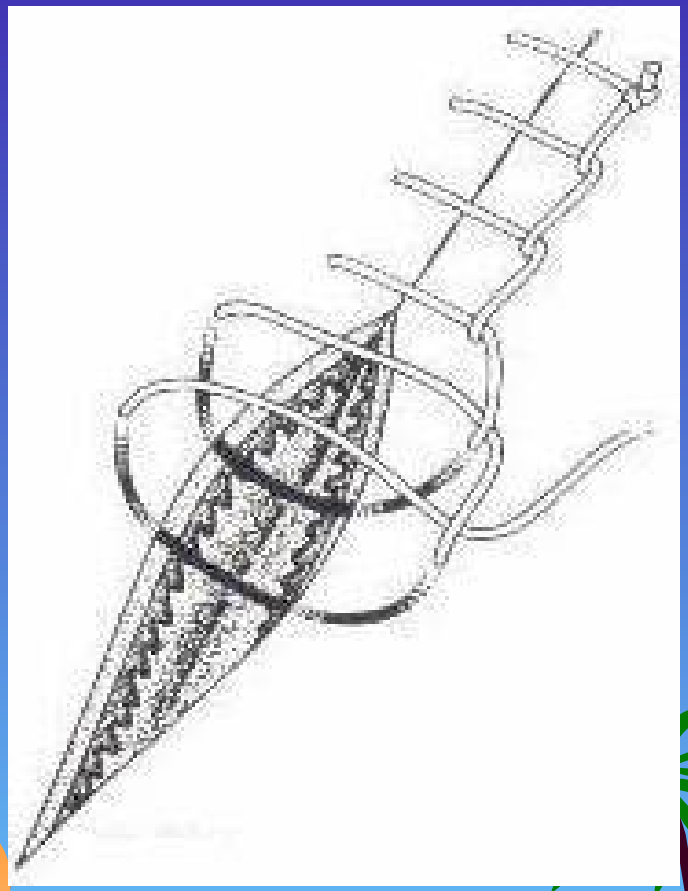
- #11 blade Use number 3 for lacing and stabbing.
- #12 blade Use number 7 handle for Used primarily in E.N.T.
- #15 blade Uses number 7 handle for deep knife, or for delicate incision.

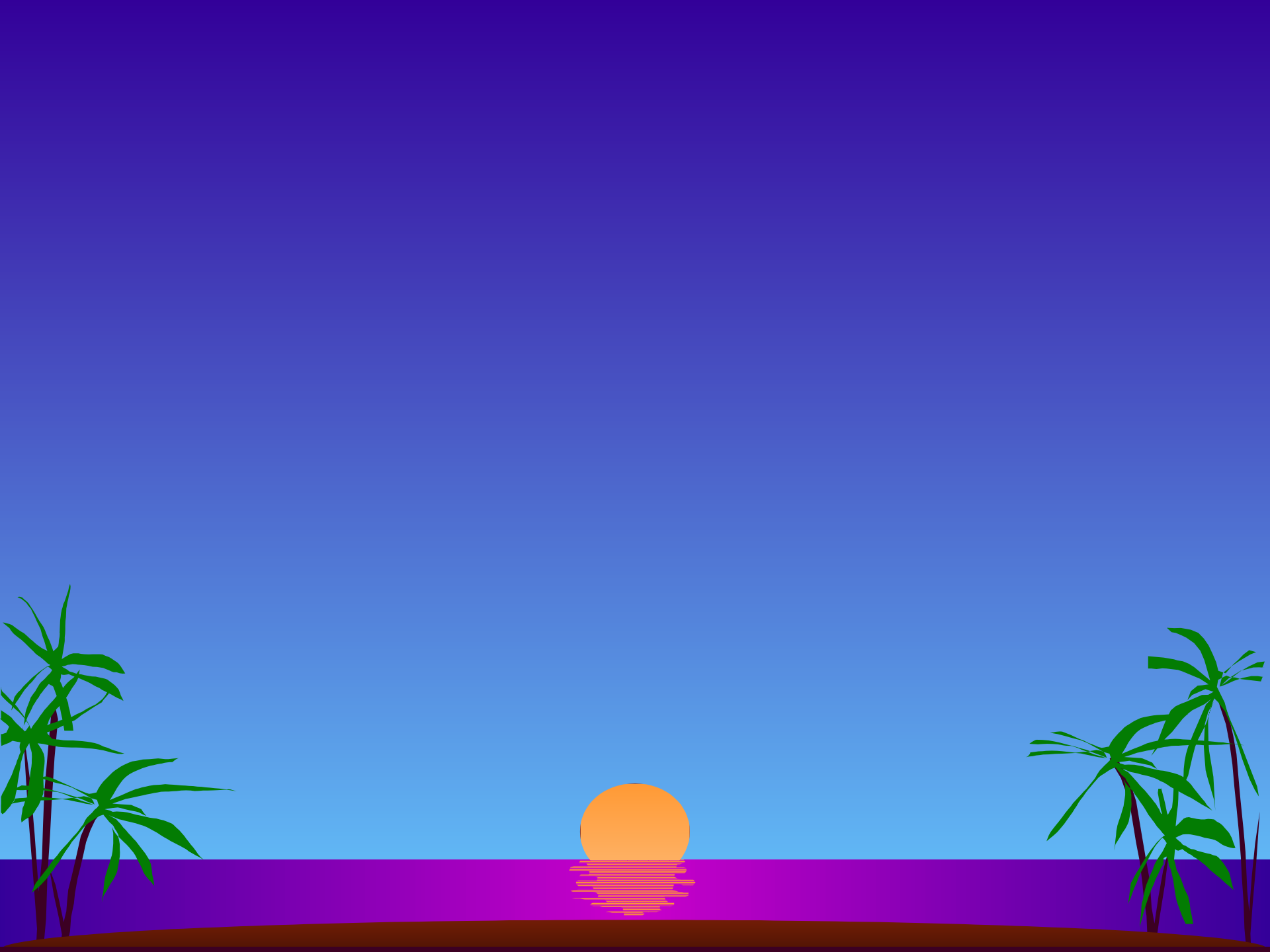
Questions

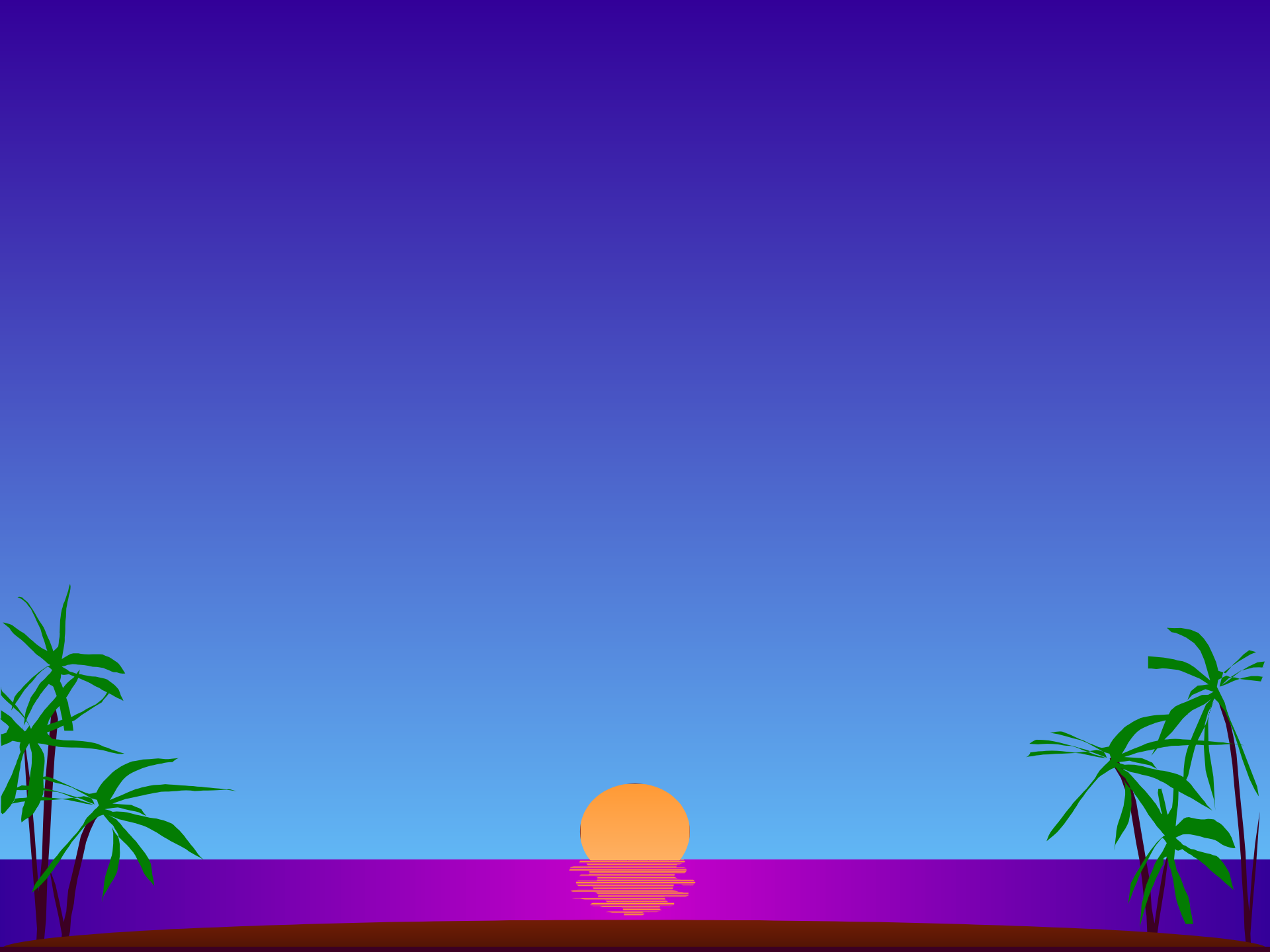


Continuous Sutures









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